

Features

- Low turn-on voltage.
- Fast switching.
- PN Junction Guard Ring for Transient and ESD Protection.
- Ultra-small surface mount package.

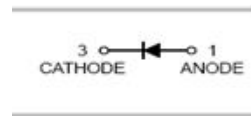
HF

Typical Applications

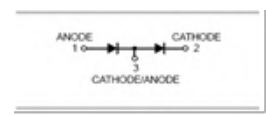
- Schottky barrier diodes.

Mechanical Data

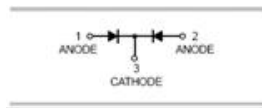
- Case: SOT-523
- Terminals: solderable per MIL-STD-202, Method 208.



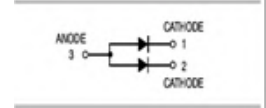
BAS70T



BAS70-04T



BAS70-05T



BAS70-06T



SOT-523

Ordering Information

Part Number	Package	Shipping	Marking Code
BAS70T	SOT-523	3000 pcs / Tape & Reel	7C
BAS70-04T	SOT-523	3000 pcs / Tape & Reel	7D
BAS70-05T	SOT-523	3000 pcs / Tape & Reel	7E
BAS70-06T	SOT-523	3000 pcs / Tape & Reel	7F

Maximum Ratings (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	V _{RRM}		
Working Peak Reverse Voltage	V _{RWM}	70	V
DC Reverse Voltage	V _R		
RMS Reverse voltage	V _{R(RMS)}	49	V
Forward Continuous Current *	I _F	70	mA
Non-Repetitive Peak Forward Surge Current@t _p =8.3ms	I _{FSM}	100	mA
Power Dissipation *	P _D	150	mW

* part mounted on FR-4 board with recommended pad layout

Thermal Characteristics

Parameter	Symbol	Limits	Unit
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	667	$^{\circ}C/W$
Operating Junction Temperature Range	T_j	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

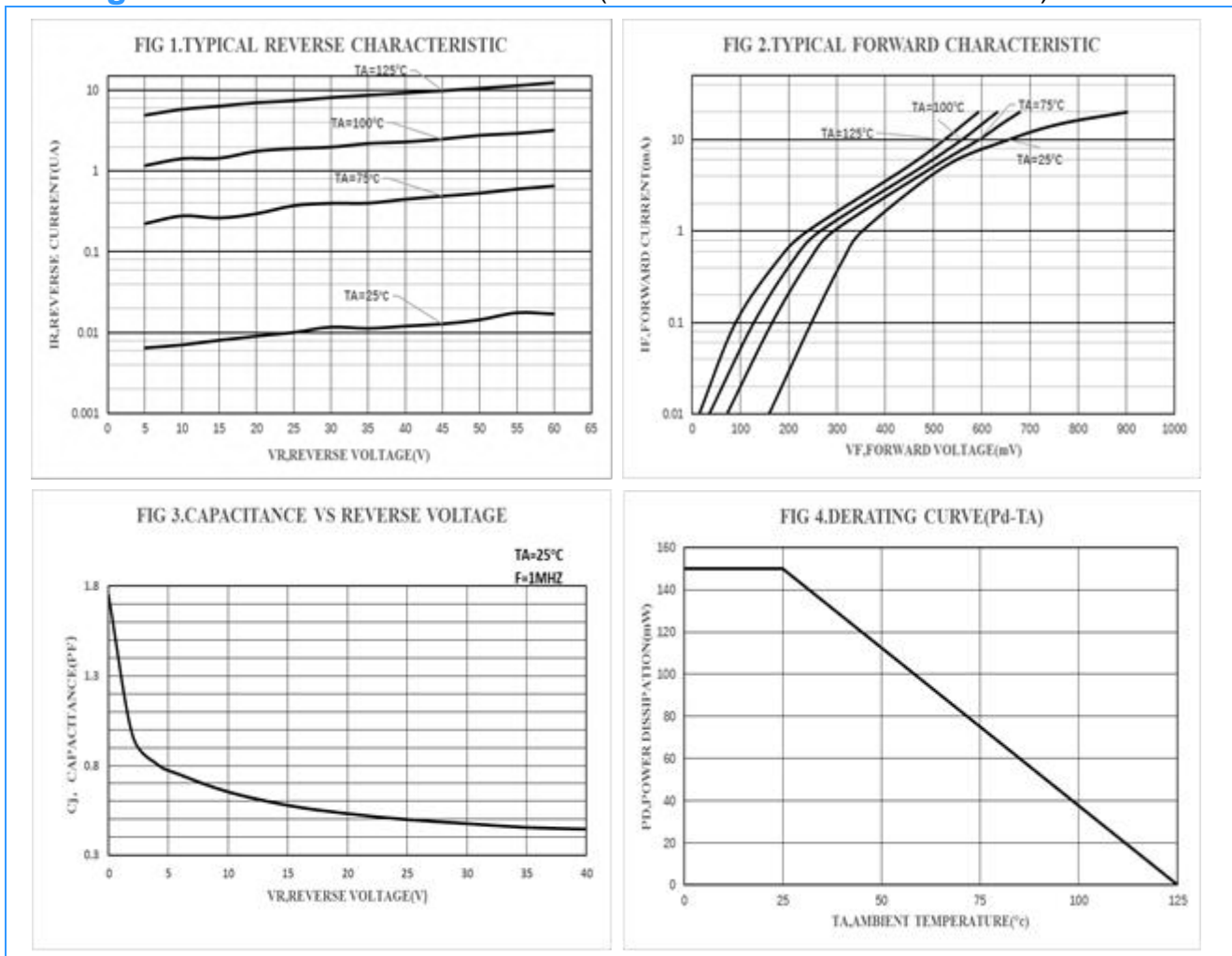
Electrical Characteristics (@ $T_A=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage *1	V_F	$I_F=1mA$			0.41	V
		$I_F=15mA$			1	V
Reverse Leakage Current *2	I_R	$V_R=50V$			100	nA
Capacitance Between Terminals	C_T	$V_R=0V, f=1MHz$			2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$			5	ns

*1: pulse test, $t_p \leq 300\mu s$

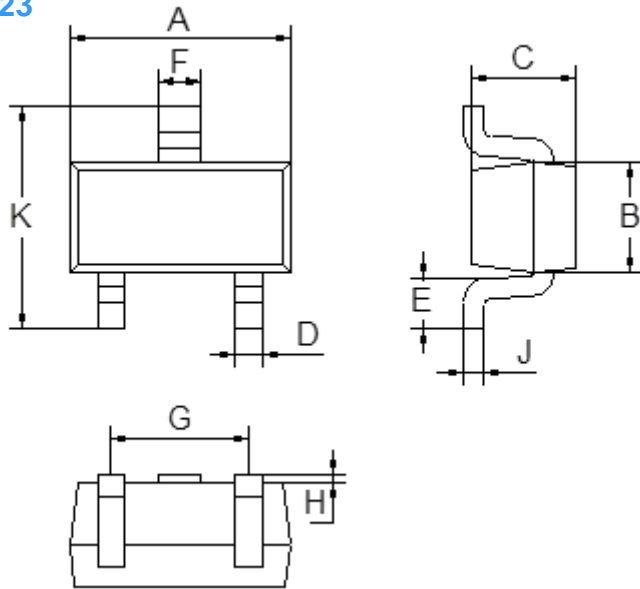
*2: pulse test, $t_p \leq 5ms$

Ratings and Characteristic Curves ($T_A=25^{\circ}C$ unless otherwise noted)



Package Outline Dimensions(unit:mm)

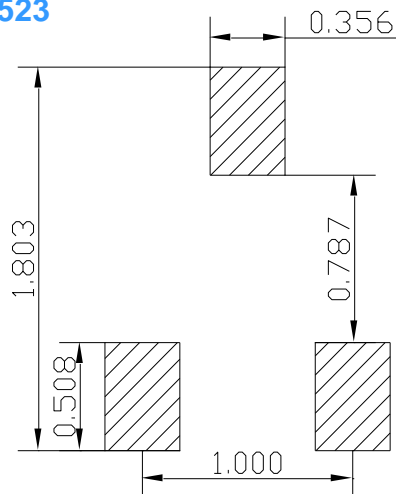
SOT-523



SOT-523		
Dim	Min	Max
A	1.50	1.70
B	0.75	0.85
C	0.60	0.80
D	0.15	0.30
E	0.30	0.40
F	0.25	0.40
G	0.90	1.10
H	0.02	0.10
J	0.08	0.18
K	1.45	1.75

Mounting Pad Layout(unit:mm)

SOT-523



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